



Cp 2176

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appl. No.: 09/685,313 Confirmation No.: 4354
Applicant(s): Brandon Mitchell Burrell
Filed: October 10, 2000
Art Unit: 2176
Examiner: P. Smith
Title: DATA STRUCTURE, METHODS, AND COMPUTER PROGRAM
PRODUCTS FOR STORING TEXT DATA STRINGS USED TO DISPLAY
TEXT INFORMATION ON A DISPLAY TERMINAL

Docket No.: 042626/204668
Customer No.: 00826

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Technology Center 2100

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Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

RESPONSE

Sir:

This correspondence is filed in response to the Office Action dated July 9, 2004. Applicant first notes with appreciation the Examiner's thorough examination of the application as evidenced by the Office Action. In response to the Office Action, Applicant has not amended the claims. Applicant respectfully submits that the claims as currently presented are patentable over the cited references. Applicant therefore respectfully requests reconsideration and allowance of the application in light of the following remarks.

I. Rejections

The Office Action rejects all of the claims as being obvious in light U.S. Patent No. 5,812,390 to Merkin in combination with U.S. Patent No. 6,498,657 to Kuntz. Specifically, the Office Action alleges that the '390 Merkin patent discloses a string data area stored in memory that includes a plurality of data strings to be displayed by a display management module. The Office Action concedes that the '390 Merkin patent does not disclose that the data strings are composed of double-byte characters or that the double-byte characters are identified by use of

escape codes. To meet this deficiency in the '390 Merkin patent, the Office Action cites the '657 Kuntz patent. The Office Action argues that the '657 Kuntz patent discloses at col. 8, line 31 – col. 9, line 2, use of escape codes for double-byte characters and that these references are combinable and that when combined disclose all of the elements of the claims. Applicant respectfully disagrees.

II. Non-Analogous Art

Applicant respectfully submits that the cited references are not combinable because the '657 Kuntz patent is non-analogous art and therefore cannot be used to reject the claims. Section 2141.01(a) of the MPEP states that a reference must be analogous art before it can be used in an obviousness rejection. To be analogous, the reference must either be in the same field of the applicant's endeavor, or if not, then be reasonably pertinent to the particular problem with which the invention is concerned. *Id.* In this regard, the Federal Circuit has stated that matter disclosed in the reference must be such that it logically would have commended itself to an inventor's attention in considering the inventor's problem. *See In re Clay*, 966 F.2d 656, 659 (Fed. Cir. 1992).

The MPEP provides instruction as to what is considered analogous art and what is not analogous art. Specifically, under the heading "Analogy In the Electrical Arts" of section 2143.01(a), the MPEP provides an example in which the application was directed to a SIMMS memory module for use in a personal PC. The Examiner in this case cited prior art that was related to SIMMS for use in industrial products. The Federal Circuit determined that the reference cited by the Examiner was non-analogous art because the claimed invention related to compact modular memories, while the prior art related to systems that allow for interchangeability of different size memories.

In the instant case, the claimed invention is related to a language module for storing data strings used by a display management module to display information on a display terminal in different languages. The '657 Kuntz patent, on the other hand, relates to a data extractor and analyzer for a printer. The system of the '657 Kuntz patent in no way relates display of text strings on a terminal in different languages. There is not discussion of displaying data or

displaying data in different languages. In short, the claimed invention is related to a system used to properly display text strings on a display, while the '657 Kuntz patent is directed to a system that extracts data from a data stream and prints reports.

The example set forth in the MPEP illustrates that there must be a very close nexus between the fields disclosed in the references. In the example in the MPEP, both the claimed invention and the prior art cited by the Examiner included information about SIMMS memories, and the Federal Circuit still found the reference non-analogous. The present case is much further away from this example. The claimed invention is directed to system for displaying text strings on a display, and the '657 Kuntz patent is to extraction of data from a data stream for printing. Applicants submit that if the Federal Circuit did not find references to be analogous where both references mention SIMMS memory devices where the only distinction was the application of the SIMMS devices, then how could a reference concerning extraction of data from a data stream for printing relate to a system of displaying text strings on a terminal in the correct language? In view of the above, Applicant respectfully submits that the Office Action has not demonstrated why the '657 Kuntz patent is analogous art.

III. The Claims Are Patentable Over the Cited Combination

As detailed below, Applicant respectfully submits that the cited references nowhere teach or suggest a data structure having “extended ASCII characters and standard ASCII characters . . . having ASCII codes at least as great as the selected escape code **encoded** [therein],” as is recited in independent Claim 1, 14, and 27.

A. Background

As background, the present invention provides data structures for storing data strings used by a display management module to display information on a display terminal. The data strings are stored in the data structure and are associated with unique tokens located in the computer program. The data strings are accessed by the display management module based on the tokens and used for display.

In the claimed invention, the data structure has a string data area that includes data strings representing language data. Each character of each data string is a character selected from the group consisting of standard ASCII, extended ASCII, and double byte characters (DBCS). The characters in a data string that are standard ASCII (less than code 80 hexadecimal) or extended ASCII (codes greater than or equal to 80 hexadecimal) with codes less than a predetermined escape code are stored by their ASCII representations in the string data area. Extended ASCII characters having characters codes greater than or equal to the escape code are stored as two-byte codes with the ASCII character code preceded by the escape code. Further, the double byte characters are encoded sequentially as two-byte codes whose starting value is found by taking the value one greater than the escape code and making the next byte zero. For example, if the escape code is selected to be 0E0 hexadecimal then the first DBCS character code would be 0E100, and the 16 bit values may therefore be incremented sequentially from 0E101 to 0FFFF hexadecimal.

In order to differentiate between codes used for DBCS characters and those used for extended ASCII, the extended ASCII characters must be preceded by the escape code. For example, when processed byte by byte, the code 0E5h encountered by itself in the string data would indicate the start of a 16-bit DBCS character code, such that 0E5 and the following byte would represent the code. In order to represent the actual extended ASCII character of 0E5 hexadecimal, it would be preceded by the escape code, as in 0E0E5. This encoding scheme therefore allows all 256 ASCII codes, as well as a range of 16 bit DBCS character codes to coexist within and be extracted from the string data. As such, the data structure may be designed to contain data strings for not only languages that require textual representations in ASCII and extended ASCII characters, but also for languages, such as Kanji, that require graphical characters that are displayed using DBCS characters.

B. The Claims Are Patentable

It appears that the rejections raised in the Office Action overlook a very important part of independent Claims 1, 14, and 27 that is not taught or suggested by the cited references. These claims all recite that both extended ASCII characters and standard ASCII characters having

ASCII codes at least as great as a selected escape code are encoded in the data structure. At best, the '657 Kuntz patent only discloses that double-byte characters are encoded. It nowhere teaches or suggests encoding of some extended ASCII characters and standard ASCII characters in a data structure. This is an important aspect of the claimed invention as it allows for storage of more characters in the allotted memory storage, such that the module is capable of storing data for display in fonts that require standard ASCII, extended ASCII, and double-byte characters.

The '657 Kuntz patent refers to a mechanism for specifying the order of text strings during printing (i.e., US date versus European date format) by encoding the strings with special escape sequences. It in no way relates to display of text in different languages. It does not refer to how the string characters are encoded to handle multi-language characters, especially graphical languages such as Chinese or Japanese. There is nothing in the '657 Kuntz patent concerning encoding standard ASCII characters, extended ASCII characters, and double-byte characters into the same data structure. In short, the '657 Kuntz patent nowhere teaches or suggests a data structure having "extended ASCII characters and standard ASCII characters . . . having ASCII codes at least as great as the selected escape code and ASCII characters that identify double byte characters encoded [therein]" as is recited in independent Claims 1, 14, and 27. As such, Applicant respectfully submits that independent Claims 1, 14, and 27, as well as the claims that depend therefrom, are patentable over the cited references.


Applicant notes that several of the dependent claims also recite patentable features not taught or suggested by the cited references. Applicant has not included herein arguments to each of these dependent claims due to the above-discussed differences between the cited art and the independent claims. However, Applicant reserves the right to do so in future correspondence.

CONCLUSION

In light of the remarks above, Applicant respectfully submits that the case is now in condition for allowance. It is therefore requested that a Notice of Allowance be issued. The Examiner is encouraged to contact Applicant's undersigned attorney to resolve any remaining issues in order to expedite examination of the present application.

It is not believed that extensions of time or fees for net addition of claims are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 CFR § 1.136(a), and any fee required therefore (including fees for net addition of claims) is hereby authorized to be charged to Deposit Account No. 16-0605.

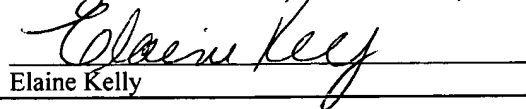
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I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on October 11, 2004


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